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# Valvular Heart Disease

## ADHERENCE TO BENZATHINE PENICILLIN IN CHILDREN WITH RHEUMATIC FEVER/ RHEUMATIC HEART DISEASE: RESULTS FROM AN INDIAN PEDIATRIC RHD REGISTRY

Poster Contributions
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Authors: *Anita Saxena, Anurag Mehta, Sivasubramanian Ramakrishnan, All India Institute of Medical Sciences, New Delhi, India*

**Background:** Benzathine penicillin (BPG) is the most effective method for secondary prophylaxis against recurrence of rheumatic fever. The efficacy largely depends on adherence to injections of BPG. Low rates of adherence have been reported from various low and middle income countries. We report the adherence rates to BPG in children with RHD, enrolled in a registry at a tertiary care centre in India.

**Methods:** We prospectively collected information on BPG injections during follow up visits of patients by means of a standard questionnaire and a card to document the injections received. For patients interviewed on multiple visits, the mean for each patient was included in the analysis.

**Results:** Data on BPG was available for 167 patients at a mean follow up of 11.9+2.5 months. The mean age of the patients was 11.9 years (SD=2.8 years), and 59 (35%) were girls. Only 16 (9%) of patients were from Delhi; 138 (83%) were from BiMaRU states, reflecting the referral population of the tertiary care centre. Most patients hailed from rural areas (148, 85%), and the majority (n=123, 73%) were from the lower and lower/ upper lower socioeconomic strata on the modified Kuppuswami socio-economic scale. The overall adherence rate to BPG was 93.6% (SD=15.9%), it ranged from 0%-100%. 151 patients (90.5%) had good adherence to BPG ( >80%). Adherence rate was <80% in 16 patients (9.5%), 7 of these had extremely poor adherence of < 50%. The most common reason for poor adherence to BPG was lack of awareness of the importance of BPG (9 patients). Other reasons included pain and fear of injection (2 patients), non availability of BPG (3 patients), and BPG stopped by local physicians after valve replacement surgery (2 patients). There was no correlation of adherence rates to educational qualification, socio-economic scale, transportation cost for BPG, and total cost of BPG prophylaxis.

**Conclusion:** The overall BPG adherence rates are good for children with RHD who are enrolled in a hospital registry. Lack of awareness of the significance of BPG for secondary prophylaxis is the most common reason for poor adherence. Future efforts must be directed at improving awareness amongst patients, parents and the local health care providers.